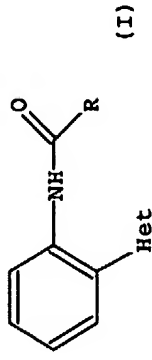
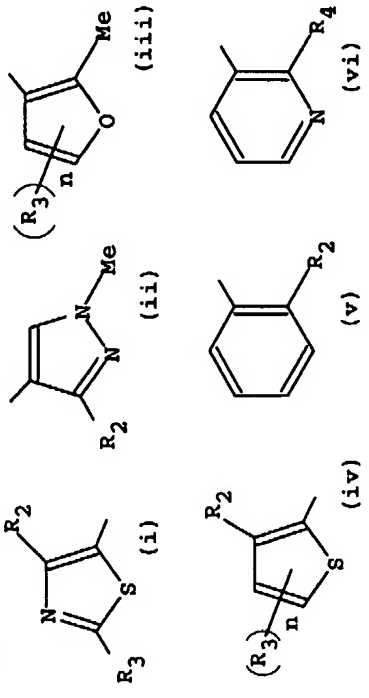
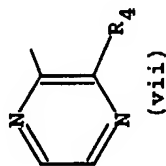
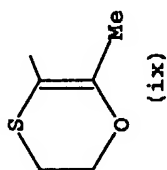
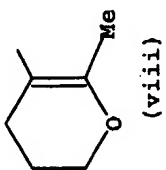


<p>96-236056/24 C02  MITSUI TOATSU CHEM INC  94.09.27 94JP-231599 (96.04.09) C07D 231/14, A01N 43/08, 43/10, 43/40, 43/54, 43/56, 43/58, C07D 237/08, 241/12, 239/26, 413/12, 409/12, 405/12, 307/52, 277/32, 277/28, 263/32, 417/12, 261/08, A01N 43/60, 43/76, 43/78, 43/80, C07D 213/40, 213/61  New heterocyclic aniline derivs. - useful as agricultural and horticultural antibacterial agents esp. against gray mould on strawberries and green beans  C96-075100</p>	<p>MITK 94.09.27  *JP 08092223-A  C(7-H, 14-A1C) .2</p>
<p>Heterocyclic aniline derivs. of formula (I) are new:</p> <div data-bbox="824 1291 974 1648">  <p>(I)</p> </div> <p>Het = furyl, thiophenyl, pyridyl, pyrimidine, pyridazine (all substd. by (R<sub>1</sub>)<sub>n</sub>); 1,2-oxazolyl, 1,2-thiazolyl or 1,3-thiazolyl, 1,3-oxazolyl (all substd. by R<sub>1</sub>) or 1-R<sub>1</sub>-pyrazolyl or pyrazin-2-yl (substd. by (R<sub>1</sub>)<sub>n</sub>);</p>	<p>n is not defined;  R<sub>1</sub> = H, 1-4C alkyl, halo or 1-4C haloalkyl;  R = a gp. of formula (i) - (ix);</p> <div data-bbox="657 325 1023 1018">  <p>(i) (ii) (iii) (iv) (v) (vi)</p> </div> <p>JP 08092223-A+</p>



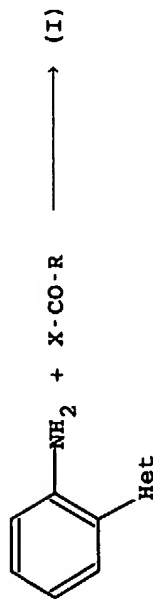
$R_2$  = 1-4C alkyl, halo or 1-4C haloalkyl;  
 $R_3$  = H or 1-4C alkyl;  
 $R_4$  = halo.



#### USE

(I) are useful as agricultural and horticultural bactericides, esp. against gray mould on strawberries and green beans.

#### PREPARATION



X = F, Cl, Br or I.

#### EXAMPLE

0.6 g of 2-chloronicotinamide and 5 ml of thionyl chloride were heated under reflux for 1.5 hrs., then conc. under reduced pressure to give a carboxylic acid chloride, this was dissolved in 10 ml tetrahydrofuran and 0.53 g pyridine was added.

0.56 g of 2-(2-thienyl)aniline dissolved in THF was added to the above soln. and stirred at room temp. for 1 hr. The resulting mixt. was poured over ice and extracted with ethyl acetate, then washed with 5% hydrochloric acid, then with satd. sodium hydrogen carbonate aq. soln. and dried with magnesium sulphate.

The solvent was removed by evaporation under reduced pressure to give 0.71 g (76%) N-(2-(2-thienyl)phenyl)-2-chloronicotinamide. (20pp055DwgNo.0/0)

JP 08092223-A

## HETEROCYCLE-SUBSTITUTED ANILINE DERIVATIVE AND AGRICULTURAL/HORTICULTURAL GERMICIDE WITH THE SAME AS ACTIVE INGREDIENT

Publication number: JP8092223

Publication date: 1996-04-09

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SHUNICHI

Applicant: MITSUI TOATSU CHEMICALS

Classification:

- international: C07D237/08; A01N43/08; A01N43/10; A01N43/40;  
A01N43/54; A01N43/56; A01N43/58; A01N43/60;  
A01N43/76; A01N43/78; A01N43/80; C07D213/40;  
C07D213/61; C07D231/14; C07D239/26; C07D241/12;  
C07D261/08; C07D263/32; C07D277/20; C07D277/28;  
C07D277/32; C07D277/56; C07D307/52; C07D405/12;  
C07D409/12; C07D413/12; C07D417/12; C07D237/00;  
A01N43/02; A01N43/34; A01N43/48; A01N43/72;  
C07D213/00; C07D231/00; C07D239/00; C07D241/00;  
C07D261/00; C07D263/00; C07D277/00; C07D307/00;  
C07D405/00; C07D409/00; C07D413/00; C07D417/00;  
(IPC1-7): C07D231/14; A01N43/08; A01N43/10;  
A01N43/40; A01N43/54; A01N43/56; A01N43/58;  
A01N43/60; A01N43/76; A01N43/78; A01N43/80;  
C07D213/40; C07D213/61; C07D237/08; C07D239/26;  
C07D241/12; C07D261/08; C07D263/32; C07D277/28;  
C07D277/32; C07D277/56; C07D307/52; C07D405/12;  
C07D409/12; C07D413/12; C07D417/12

- european:

Application number: JP19940231599 19940927

Priority number(s): JP19940231599 19940927

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### Abstract of JP8092223

**PURPOSE:** To obtain a new heterocycle-substituted aniline derivative having excellent disease injury-controlling effect and useful as an agricultural/ horticultural germicide safe to crop. **CONSTITUTION:** This compound is expressed by formula I [Het is of formula II, III, IV, V (R<1> is H, a 1-4C alkyl, halogen or 1-4C haloalkyl), etc.; R is formula VI-IX (R<2> is a 1-4C alkyl, halogen or 1-4C haloalkyl; R<3> is H or a 1-4C alkyl), etc.], e.g. N- 2-(2-thienyl)phenyl-2-chloronicotinamide. This compound of formula I is obtained by reaction between a heterocyclic-substituted aniline and a carboxy acid halide in a melt state or in a solvent. Plant disease injuries can be controlled by applying this compound or a germicide containing this compound to plant pathogenic fungi or their inhabited sites.

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